

RG 104, 8KRA-104-84-051
Box 1

Miscellaneous Correspondence Relating
Primarily to Building Construction
Alterations & Inspections, 1935-1937.

Contract for Additional Vault Construction

DENVER, COLO. MINT

ADDITIONAL VAULTS.

SPECIFICATION FOR CONSTRUCTION (EXCEPT
VAULT ENTRANCE AND LIFT) OF ADDITIONAL VAULTS
FOR THE UNITED STATES MINT AT DENVER, COLO.

TREASURY DEPARTMENT, Office
of the Supervising Architect, Wash-
ington, D. C., July 3, 1923.--
SEALED PROPOSALS will be opened in
this office at 3 p.m., August 2,
1923, for construction (except vault
entrance and lift) of two additional
reinforced concrete and steel
vaults for the United States Mint
at Denver, Colo. Drawings and
specifications may be obtained from
the custodian at Denver, Colo., or
at this office in the discretion
of the Supervising Architect.
Jas. A. Wetmore, Acting Supervising
Architect.

NOTICE TO PRINTER

The advertisement
must be set SOLID
after this style:

John See letter July 26 1923

R. A. YOUNG & COMPANY
1324 ELATI ST. PHONE CHAMPA 2443 P. O. BOX 483
DENVER, COLORADO

Safes for Banks and all purposes
Fire and Burglar Proof - - New and Used
Safe Deposit Boxes - - - Safe Experts

Vault Doors, Steel Lockers and Steel Shelving, Letter, Card Files, Etc.
Bank, Office, Store, Church, School, Lodge and Theatre Furniture,
Fixtures and Supplies.

GUARANTY PARAGRAPH 43.

Bidders are required to return the drawings and
specifications without marks, notes, or other mutilations.

A-1a.

TREASURY DEPARTMENT.
OFFICE OF THE SUPERVISING ARCHITECT.

SPECIFICATION A-1a.

GENERAL CONDITIONS.

1. NOTICE TO BIDDERS.—General contractors who desire to submit lump-sum bids will be furnished with one set of drawings and specifications free, and not exceeding two additional sets will be furnished contractors upon receipt of a certified check for the sum of \$100 for each set desired. The certified checks must be made payable to the order of the Treasurer of the United States, and the proceeds will be held until the return of the drawings and specifications in good condition (without marks, notes, or mutilations thereon), when the deposit for the returned set will be forwarded immediately.

2. There is on file in the plan room of the Supervising Architect's Office a set of the drawings and specification for general use of subcontractors, etc.

3. EIGHT-HOUR LAWS.—The attention of bidders is called to the acts of Congress approved August 1, 1892, June 19, 1912, and March 3, 1913, limiting the hours of daily service of laborers and mechanics employed upon public works of the United States to eight hours in any one calendar day.

4. Attention is directed to the following Executive orders:

5. EXECUTIVE ORDER, MAY 29, 1905.—Whereas, by an act of Congress which received Executive approval on February 23, 1887, all officers or agents of the United States were, as a matter of public policy, forbidden, under appropriate penalties, to hire or contract out the labor of any criminal who might thereafter be confined in any prison, jail, or other place of incarceration for the violation of any laws of the Government of the United States of America:

6. It is hereby ordered that all contracts which shall hereafter be entered into by officers or agents of the United States involving the employment of labor in the States composing the Union or the Territories of the United States contiguous thereto shall, unless otherwise provided by law, contain a stipulation forbidding in the performance of such contracts the employment of persons undergoing sentences of imprisonment at hard labor which have been imposed by the courts of the several States, Territories, or municipalities having criminal jurisdiction.

7. EXECUTIVE ORDER, SEPTEMBER 19, 1906.—All departments of the Government under the supervision of which public works are being constructed are hereby directed to notify the representatives stationed at such public works to report at once to their respective departments all cases in which contractors or subcontractors on works now under construction have required or permitted laborers or mechanics in their employ to work over eight hours in any one calendar day.

8. All Government representatives in charge of construction of public works are further directed that it is part of their duty to report to their respective departments each and every case in which laborers or mechanics are required or permitted to work over eight hours a day on the works under supervision of such Government representatives. Wherever reports showing work in excess of eight hours a day are received by any department they are to be referred to the Department of Justice for appropriate action.

9. CONTINGENT FEES FORBIDDEN.—It is a condition of the bidding that, if awarded a contract, the contractor expressly warrants that he has employed no third person to solicit or obtain this contract in his behalf, or to cause or procure the same to be obtained upon compensation in any way contingent, in whole or in part, upon such procurement; and that he has not paid, or promised or agreed to pay, to any third person, in consideration of such procurement, or in compensation for services in connection therewith, any brokerage, commission, or percentage upon the amount receivable by him hereunder; and that he has not, in estimating the contract

price demanded by him, included any sum by reason of any such brokerage, commission, or percentage; and that all moneys payable to him hereunder are free from obligation to any other person for services rendered, or supposed to have been rendered, in the procurement of this contract. He further agrees that any breach of this warranty shall constitute adequate cause for the annulment of this contract by the United States, and that the United States may retain to its own use from any sums due or to become due thereunder an amount equal to any brokerage, commission, or percentage so paid, or agreed to be paid: *Provided, however,* It is understood that this covenant does not apply to the selling of goods through a bona fide commercial representative employed by the contractor in the regular course of his business, in dealing with customers other than the Government and whose compensation is paid, in whole or in part, by commissions on sales made, nor to the selling of goods through established commercial or selling agents or agencies regularly engaged in selling such goods.

10. VISIT TO SITE.—The bidders should inspect the site or premises and fully inform themselves of the character of the same and the conditions under which the work is to be performed, and failure to do so will in no way relieve the successful bidder from the necessity of furnishing any materials or performing any labor that may be required to complete the work, in accordance with the true intent and meaning of the specifications and drawings, without additional cost to the Government.

11. VERBAL EXPLANATION TO BIDDERS.—No verbal answer will be given to any inquiries in regard to the meaning of the drawings and specifications, nor will any verbal instructions be given previous to the award of the contract. No verbal statement regarding same by any person previous to the award of the contract shall be authoritative. Any explanation desired by bidders must be requested in writing. If reply is made it will be communicated to all bidders.

12. FORM OF PROPOSAL AND SIGNATURE.—Proposal must be made on the blank form hereto attached, stating in writing and figures (without interlineation, alteration, or erasure) the sum of money for which the bidder proposes to supply the materials and perform the work required by the drawings and the specifications, and the unit prices when called for in the proposal sheet. The proposal must be signed with the full name and address of the bidder; if a copartnership, the copartnership name by a member of the firm, with the name in full of each member; and if a corporation, by an officer in the corporate name, with the corporate seal attached to such signature. No telegraphic proposals or telegraphic modifications of proposals will be considered. Proposals shall be inclosed in sealed envelope marked "Proposal," with title of the work, and addressed to the Supervising Architect.

13. Proposals must be submitted in duplicate.

14. Proposals are opened in the Office of the Supervising Architect at the hour stated. Delayed bids will not be considered unless received at the Washington, D. C., post office in time to have been delivered in due course of business at or before the hour stated. All other proposals received will be returned unopened. If proposal is sent by registered mail, allowance should be made for the additional time required for such transmission.

15. CERTIFIED CHECK.—Each proposal, when amounting to \$2,000 or more, shall be accompanied by a certified check in a sum equal to approximately 2 per cent of the amount of such proposal, drawn to the order of the Treasurer of the United States, and no proposal will be considered unless it is accompanied by said check. The proceeds of such check shall become the property of the United States if for any reason whatever the bidder, after the opening of bids, event of said contract being awarded to him. The check submitted by the successful bidder will be returned after the acceptance of his bond. All other checks will be returned as soon as by the department. Bid bonds will not be accepted in lieu of certified checks.

16. Proposals in amount less than \$2,000 shall be accompanied by certified checks equal to 10 per cent of the proposal. The check submitted with such proposal, if proposal is accepted, shall be retained by the Government until the completion and acceptance of the work, and in such case no bond would be required.

17. DELAYS.—Each bidder must submit his proposal with the distinct understanding that in case of its acceptance, time for completion of the work shall be considered as of the essence of the contract, and that for the cost of all extra inspection, and for all amounts paid for rents, salaries of contingent force, and other expenses entailed upon the Government by delay in completing the contract, the United States shall be entitled to the fixed sum specified as *liquidated damages* computed, estimated, and agreed upon, for each and every day's delay not caused by the United States: *Provided, however*, That the collection of said sum may, in the discretion of the Secretary, be waived in whole or in part, and that the contractor is to be entitled to one day, in addition to such stipulated time, for each day the work is suspended by the Government, and a similar extension for each day's delay caused by the Government, provided written claim for such extension is made within 10 days of the occurrence of such delay.

18. CONTRACT.—The contract which the bidder agrees to enter into shall be in the form in use in the Office of the Supervising Architect, blank forms of which can be inspected at said office and will be furnished, upon request being made, to parties proposing to submit bids. In case of the abrogation of the contract, whether by reason of the default of the contractor, his bankruptcy, or other cause, the Supervising Architect, acting for both parties, shall have the right to determine the valuation of all work performed and all materials furnished in place in connection with the contract and of all material, machinery, tools, etc., upon the site of the building taken possession of by the Government, and his decision shall be final. A copy of the contract will be furnished the contractor after the acceptance of his bond.

19. BOND.—The successful bidder must furnish a satisfactory bond, in amount of approximately one-half of the contract price, executed upon the blank form in use by the Treasury Department, by sureties acceptable to the Treasury Department, insuring the fulfillment of all the provisions of the contract and covering all guaranties herein provided for and prompt payment to all persons furnishing labor and materials required in the prosecution of the work. The form of bond may be seen upon application. A copy of the bond will be furnished the contractor after its acceptance.

20. No bond will be required when the amount of contract is less than \$2,000.

21. ADDITIONAL SECURITY.—In every case where a bond is required, should any surety thereon become, in the opinion of the Secretary of the Treasury, unacceptable as surety to the United States at any time during the life of the contract and of the guaranties covered thereby, the contractor must promptly furnish such additional security as the said Secretary of the Treasury may from time to time require to protect the interests of the United States and of persons supplying labor or materials in the prosecution of the work contemplated by the contract.

22. NOTICE TO SURETIES.—The attention of the sureties is particularly directed to the following conditions:

23. The final inspection and acceptance of the work shown by the drawings and specifications forming a part of the contract shall not be binding or conclusive upon the United States if it shall subsequently appear that the contractor has willfully or fraudulently, or through collusion with the representatives of this department in charge of the work, supplied inferior materials or workmanship, or has departed from the terms of the contract; or if defects of any kind should develop during the periods that the guaranties covering such material and workmanship are in force, the United States shall have the right, notwithstanding such final acceptance and payment, to have the work removed and to cause the work to be properly performed and satisfactory material supplied to such extent as in the opinion of the Supervising Architect may be necessary to finish the work in accordance with the drawings and specifications therefor.

at the cost and expense of the contractor and the sureties on his bond, and shall have the right to recover against the contractor and his sureties the cost of such work, together with such other damages as the United States may suffer because of the default of the contractor in the premises, the same as though such acceptance and final payment had not been made.

24. Attention is called to section 21 of the act approved June 6, 1902, which provides as follows:

That in all contracts entered into with the United States after the date of the approval of this act for the construction or repair of any public building or public work under the control of the Treasury Department a stipulation shall be inserted for liquidated damages for delay and the Secretary of the Treasury is hereby authorized and empowered to remit the whole or any part of such damages as in his discretion may be just and equitable, and in all suits hereafter commenced on any such contracts or on any bond given in connection therewith it shall not be necessary for the United States, whether plaintiff or defendant, to prove actual or specific damages sustained by the Government by reason of delays, but such stipulation for liquidated damages shall be conclusive and binding upon all parties.

25. PARTIES IN INTEREST.—No Member of or Delegate to Congress, no Resident Commissioner, and no officer of the Treasury Department, superintendent, inspector, clerk, employee, or other person in any manner connected with the Office of the Supervising Architect shall be interested, either directly or indirectly, in the contract or work herein provided for or be entitled to any benefit derived therefrom; and any violation of this understanding shall work a forfeiture of all moneys which may become due to the successful bidder.

26. SUBCONTRACTORS.—Unless otherwise specifically stated the contractor will be free to select subcontractors for the work, but in all cases the subcontractors must be capable of performing in a satisfactory manner all work included in that particular branch. The contractor shall furnish the superintendent with a list giving the names and addresses of all subcontractors.

27. If required in connection with special branches of the work the general contractor shall submit to the Supervising Architect for approval the names and addresses of the firms which he proposes to employ as subcontractors. The location of at least three buildings in which the said firms have executed contracts of the same character as the work included in this contract must also be stated, in order that an examination of the workmanship and materials may be made.

28. The contractor will be responsible for all acts of the subcontractors employed by him, and the approval of the Supervising Architect of any subcontractor will not relieve the general contractor of such responsibility. The failure of any subcontractor to complete his branch of the work in a satisfactory manner within the proper time will not excuse the contractor for any delay in the completion of the entire contract.

29. No subcontractor or other person furnishing material or labor to the contractor will be recognized, nor will this department be responsible in any way for the claims of such persons beyond taking a bond, as required by the act of Congress approved August 13, 1894, which provides in substance that when a formal contract is let for the erection or repair of a public building, etc., the contractor, before commencing such work, shall furnish the usual penal bond, with good and sufficient sureties, with the additional obligation that such contractor will make prompt payment to all persons furnishing him labor or materials used in the prosecution of the work. Persons so furnishing materials or labor have a right of action on said bond in the name of the United States for their use. No formal contract is usually let, however, and no bond taken where the amount involved is less than \$2,000.

30. OTHER CONTRACTS.—The Government may award other contracts for additional work, and the contractor operating under this specification shall not prevent such other contractors from entering the premises and performing their work, and he shall fully cooperate with such other contractors and carefully fit his own work to that provided under other contracts.

31. **RIGHTS RESERVED.**—The Treasury Department reserves the following rights: (a) To reject any or all proposals; (b) to waive any informalities in any proposal; (c) to award this contract to some other than the lowest bidder when the specification expressly puts the bidders on notice that time for completion will be given special consideration in awarding the contract, or when the material proposed to be used by such higher bidder, or his financial and business standing and ability properly and expeditiously to carry out work hereunder, or the consideration of desired alternates, makes his proposal more advantageous to the United States; (d) to accept any alternate or any independent part of any proposal submitted by the successful bidder at the price stated in such proposal for such alternate or separate part of the work; (e) to deduct any separate item mentioned in any proposal at the price therein stated therefor; (f) to make any additions to, omissions from, changes in, or substitutions for the work or materials or articles called for by the contract, subject to the requirements of the paragraph hereof headed "Valuation of additions, etc.," and without notice to the sureties on the bond, if any, guaranteeing the performance of the contract; (g) to have all uncompleted work completed, all defects remedied, and all authorized additions, omissions, changes, or substitutions made and the cost thereof charged to his account should this contractor fail promptly to remedy defects or to make such additions, omissions, changes, or substitutions; (h) to require the contractor to furnish promptly additional security for the protection of the interests of the United States and of persons supplying labor or materials in the prosecution of the contract whenever additions are made or whenever, in the opinion of the Supervising Architect, any surety becomes unacceptable as surety to the United States during the life of the contract or of the guaranties covered thereby; (i) to require the contractor to discontinue the services or presence of any of his employees or agents or other persons on the work who may be unskilled or otherwise objectionable; (j) to suspend any portion of the contract work whenever the Supervising Architect deems it necessary for the purposes or advantage of the work; (k) and to withhold payment until samples, shop drawings, engineer's certificates, additional bonds, or any other things required by this contract have been properly submitted to the satisfaction of said Supervising Architect.

32. **VALUATION OF ADDITIONS, ETC.**—If no agreement can be reached by the parties to the contract as to the reasonable value of the work or materials involved in any omissions, additions, changes, or substitutions, then the value of such omissions, additions, changes, or substitutions shall be fixed by the Supervising Architect, whose decision in the premises shall be binding upon both parties to this contract, and no claim for damages on account of such omissions, additions, changes, or substitutions, or for anticipated profits shall be made by or allowed to the contractor.

33. **PAYMENTS.**—Payments of approximately 90 per cent of the value of the work executed and satisfactorily in place, as ascertained by the Supervising Architect, acting through the superintendent, will be made monthly, and payment of the balance retained will be made after the final acceptance by the duly authorized representative of the Treasury Department of all materials and workmanship embraced in the contract, but payments will not be made until every part of the work to the point for which payment is claimed is satisfactorily supplied and executed in every particular and all defects therein remedied to the satisfaction of the Supervising Architect.

34. After the award of the contract, the contractor, if so required, shall, with the superintendent of construction, make up in triplicate a schedule of the cost of the main branches of the work, the sum total of which shall equal the amount of the contract. If the superintendent and the contractor can not agree upon the values of the different items in the schedule, the superintendent shall fix the values to be used. The unit rates employed in the making up of the cost of the main branches of the work shall be used only as a basis for determining payments

and shall not be considered in any manner as fixing a basis for additions to or deductions from the contract.

35. One copy of each schedule shall be delivered to the contractor, one copy retained by the superintendent of construction, and a third copy shall be forwarded to the Supervising Architect.

36. SUPERINTENDENT.—A superintendent is to be detailed for the purpose of superintending the construction of this work, but such superintendence may not be continuous for the reason that he may be employed upon two or more buildings, or he may be detailed for other purposes, and his absence at any time is not to be considered as a reason for delay in carrying out the contract.

37. The superintendent's directions shall be supplementary to the specification and not in conflict with the contract requirements.

38. No claim for an extension of time or for additional compensation will be entertained by the Government except as provided for in the contract.

39. The following Treasury circular (No. 146, Secretary's office, approved by the Secretary of the Treasury Dec. 31, 1877) in regard to the interpretation of public contracts, etc., is based upon a decision of the Supreme Court in the case of *Hawkins v. United States* (No. 700, October term, 1877), and publication is made for the information and guidance of officers in charge of public works, etc., under control of this department and all parties having or seeking to have dealings with the department through such officers:

I. When a service of a better or higher grade than that required by contract is rendered upon the demand of a public agent, such demand being made upon an interpretation of the contract, the contractor can have no claim against the United States; nor will notice given at the time to an unauthorized agent of an intention to present a claim for additional allowance on account of such better service change the rule.

II. When a contractor holds himself not bound to a performance which is sought to be required of him, he will immediately state his objections in writing to the agent in charge, who will forward it at once to the department, with his report thereon, that the question may be decided by the proper authority.

III. Claims for compensation on account of materials or services will not be considered unless they are founded in some agreement, and when the agreement is claimed to have been entered into by an agent for or on behalf of the United States it must be shown that he had authority to make such agreement.

IV. Verbal agreements between the parties to a written contract, made before or at the time of execution of the contract, are in general inadmissible to vary its terms or affect its construction, the rule being that all such verbal agreements are to be considered as merged in the written instrument. Written contracts must, therefore, be held to express the intention of the parties at the time of contracting, and their plain and reasonable construction can not be diminished or enlarged by verbal testimony in explanation of such intention. Neither can an implied promise exist with reference to any subject matter that is embraced in an express agreement.

40. WORKMANSHIP AND MATERIALS.—All work must be executed in strict accordance with the drawings, such other detail or models as may be furnished, the specifications, and the instructions of the superintendent. All materials and workmanship shall be of the best quality. Each branch of the work shall be performed only by skilled workmen experienced in that particular work and competent to perform same in a satisfactory manner.

41. Any materials or workmanship which are not strictly in accordance with the contract requirements will be rejected and must be removed from the premises, and under no circumstances will such unsatisfactory materials or workmanship be accepted at a reduction from the contract price.

42. Materials or work that have been rejected must be promptly removed, and should the same not be done, the superintendent may, 48 hours after serving written notice on the contractor, have the same removed, and the expenses incurred will be deducted from any money due the contractor.

43. **GENERAL GUARANTY.**—All work under this contract shall be guaranteed for one year from the date of the authorization of final settlement under this contract, except when a different period is specifically prescribed. All guaranties embraced in or required by this contract are subject to the terms of this paragraph, unless otherwise expressly agreed in writing by the parties to this contract. Wherever work is required to be guaranteed, this contractor, whenever notified by the Supervising Architect, must immediately (1) place in satisfactory condition in every particular any of such guaranteed work, and (2) make good all damage to the building or grounds, or the equipment or contents thereof, if such unsatisfactory condition or damage develops within the period stipulated by the guaranty and is due to the use of materials or workmanship which is inferior, defective, or not in accordance with this contract, and must make good any work or materials, or the equipment and contents of said building or grounds, which is disturbed in fulfilling any such guaranty. In any case where, in fulfilling the requirements of this contract or of any guaranty embraced in or required thereby, this contractor disturbs any work guaranteed under another contract, he must restore such disturbed work to a condition satisfactory to said Supervising Architect and guarantee such restored work to the same extent as it was guaranteed under such other contracts. Upon the contractor's failure so to proceed promptly to comply with the terms of any guaranty under this contract or still running upon work originally executed by other contractors, the United States, acting through its duly authorized representatives, may (1) either have such work performed as the Supervising Architect deems necessary to fulfill such guaranties, or (2) allow such damaged or defective work or portion of the building or grounds or contents or equipment of the building or work disturbed in fulfilling guaranties or guaranteed work, which shows such a condition as to make any such guaranty operative, to remain in such unsatisfactory condition: *Provided*, That in either event the contractor shall promptly pay the United States such sums as were (in the first instance) expended so as to fulfill such guaranty or as it would have been (in the second instance) necessary to expend to fulfill such guaranty. All guaranties under this contract shall run from the date of authorization by the Secretary of the Treasury of final settlement under this contract. Unless otherwise specifically prescribed in the particular guaranty, usual wear and tear and the result of accidents not chargeable to the contractor or his agents are excepted from the requirements of this paragraph. Everything done in fulfillment of any guaranty must be without additional expense to the United States. The opinion of the Supervising Architect as to the liability of this contractor under any such guaranty or as to the satisfactory fulfillment or compensation for the nonfulfillment thereof shall be final.

44. **PATENTS.**—The contractor must hold and save the United States, its officers, agents, servants, and employees harmless from and against all and every demand, or demands, of any nature or kind, for, or on account of, the use of any patented invention, article, or appliance included in the materials to be furnished under this contract.

45. **PROTECTION OF PUBLIC AND PROPERTY.**—The contractor must protect all materials and work, whether incorporated in the building or not, against injury from any cause, and shall provide and maintain all necessary guards, lights, etc., for the protection of the public, and he shall comply with all municipal ordinances which apply to the use of sidewalks and streets or alleys for building operations, but such ordinances do not apply inside of the lot lines. He shall be held responsible for any damage or injury to persons or property which may occur in the prosecution of the work.

46. When the whole or a portion of the work is suspended by the Government the contractor shall without expense to the United States properly cover over, secure, and protect such of the work as may be liable to sustain injury from any cause.

47. **INSURANCE.**—The contractor must obtain at his expense the necessary policies of insurance on work and materials supplied by him, as the same will be at his risk until final completion, inspection, and acceptance; but the contractor will be relieved of any risk for that portion of the premises occupied by the Government before the entire completion of the contract.

The contractor shall also carry from the beginning to the completion of the building operations insurance satisfactory to the Supervising Architect to cover liability for damages on account of bodily injuries accidentally suffered by any person in or about such building or structure or the premises adjacent thereto and incident to or in connection with such contractor's work.

48. **TEMPORARY HEAT.**—The contractor shall furnish heat to prevent injury through dampness or cold. At all times when there is concrete not thoroughly set, and after starting to apply the first coat of plastering, he shall maintain a temperature of at least 40° F. For 10 days previous to the placing of the interior wood finish and during the time that varnish is being applied a temperature of at least 70° F. shall be maintained in the building.

49. **TEMPORARY FLOORING.**—At each floor level the contractor shall keep a temporary floor at all times until a permanent floor is in place, so that in case of an accident a person would fall only one story. All temporary flooring, scaffolding, etc., must be kept in a safe condition until removed.

50. **TEMPORARY TOILET ACCOMMODATIONS.**—The contractor must provide for the use of all his workmen, where directed, ample temporary sanitary toilet accommodations with suitable sewer and water connections. He shall keep such place clean and free from flies, and, prior to the completion of the contract, all connections and appliances connected therewith are to be removed and the premises left perfectly clean.

51. **MATERIAL ON THE SITE.**—All material now on the site or materials taken from work now in place shall remain the property of the Government, and shall be reused or stored on the premises as specified, and must be protected from damage. The contractor shall be responsible for, and must make good at his own expense, all damage that may occur to such materials.

52. Materials on the site or materials taken from work now in place, which in the opinion of the superintendent have no value, shall be removed from the premises by the contractor as débris.

53. **FOREMAN.**—The contractor shall keep a competent foreman or superintendent (satisfactory to the Supervising Architect) on the work at all times during the progress of the work to receive instructions and with authority to act for the contractor.

54. **EQUIPMENT.**—The contractor must furnish suitable scaffolding, machinery, tools, utensils, temporary heating apparatus, etc., necessary for the proper carrying out of his contract. All equipment must be kept in a safe condition until removed.

55. **REMOVAL OF DÉBRIS, CLEANING, ETC.**—When directed by the superintendent the contractor must remove all dirt and débris from the building site and adjacent property, streets, alleys, etc. The contractor shall keep the sidewalks clean, including the removal of snow and ice, during the life of the contract. Upon the completion of the work the contractor shall carefully clean all lights of glass, restoring any which may be broken or otherwise damaged, due to any cause whatsoever, and shall leave the interior of the building in a broom-clean condition.

56. **ACCESS TO THE WORK.**—The Supervising Architect or his representatives shall have free access at all times to the work and to the shops, quarries, etc., of the contractor or his subcontractors or material dealers wherever any material for this work is being prepared, for the purpose of making such inspection as may be desired. The contractor must provide safe and convenient access to the various parts of the work at the site or elsewhere, and shall cooperate and assist the representatives of the Treasury Department in making such inspections.

57. **SHOP INSPECTION.**—As soon as practicable after the award of the contract the Supervising Architect must be notified as to the shops or mills where the work for which shop inspection is required is to be done, and furnished with any additional information required by the specification, so that arrangements may be made for the shop inspections. Ample facilities must at all times be arranged and at least 10 days' notice given the authorized agent of the Government for making shop or mill inspections of materials or workmanship. No part of the work shall be primed, filled, shellacked, painted, or otherwise treated in any way that will

interfere with the inspection of the same until after such inspection has been made or a written notice received from the Supervising Architect that inspection will be waived. Should any of the material be so treated or shipped before being inspected (unless written notice has been given that inspection will not be required), the cost of extra inspection will be deducted from any money due the contractor.

58. At the time of inspection the contractor shall have delivered at the mill or shop where the inspection is to be made all materials required for priming, painting, filling, shellacking, etc., so that samples of same may be obtained by the inspector and forwarded to the Supervising Architect for test; and no such materials shall be used until after they have been approved by the Supervising Architect.

59. FINAL INSPECTION.—Final inspection will not be made until all work under the contract is completed. The contractor shall notify this office when he is ready for final inspection. Should it develop that the work satisfactorily installed does not justify such inspection at that time, or that the character of materials or workmanship is such that a reinspection is found necessary, the cost of such reinspection, including the salary of the inspector, his traveling and other expenses, shall be borne by the contractor and will be deducted from any money due him on his contract.

60. GENERAL EXPLANATION OF DRAWINGS.—The general character of the detail work is shown on scale drawings, but minor modifications may be made in the full-size drawings or models (if furnished), and the contractor must not get out any part of the work requiring details or models until he has received the same.

61. Where the word "similar" occurs on the drawings it must be used in its general sense and not as meaning identical, and all details must be worked out in relation to their location and connection with reference to other parts of the work.

62. Where on any drawings only a portion of the work is fully drawn out and the remainder is indicated in outline, the drawn-out parts must be understood as applying also to all other like portions of the work. Where ornament or other detail is indicated by starting only, such detail must be continued throughout the courses or parts in which it occurs and shall also apply to all other similar parts in the work, unless otherwise noted on the drawings.

63. This specification is intended to supplement the drawings, and therefore it will not be the province of this specification to mention any portion of the construction which the drawings are competent to explain, and such omission is not to relieve the contractor from carrying out such portions only indicated on the drawings, and should items be required by the specifications not indicated on the drawings they are to be supplied, even if of such nature that they could have been indicated thereon. Any items which are not indicated on the drawings or mentioned herein, but are necessary to complete the entire work, must be supplied in place. The decision of the Supervising Architect as to the proper interpretation of the drawings and specifications shall be final.

64. KEY TO MATERIALS.—The different materials are indicated on the plans and sections in the following manner: Brick by alternate broken and solid line hatching, stone by stippling, concrete by stippling with triangular markings, terra cotta by wavy-line hatching, woodwork by solid-line hatching, and plaster by cross hatching.

65. SURVEYS, TEST LEVELS, AND MONUMENTS.—The contractor must furnish certificates from a competent engineer that the lines of the building and the elevations of bottoms of trenches, tops of floors and of entablature or plate, and the lines and elevations of approaches are in every respect as required by the drawings. Each certificate shall be executed and forwarded upon the completion of that portion of the work for which such certificate is required.

66. In addition to any monuments now existing on the site, the contractor shall place within 3 to 5 feet of each angle of the lot, and within the site, as a permanent monument, a brass pin set in a block of concrete (detail No. 55, drawing M351G), and shall forward to this

office two copies of a plat prepared by the above-mentioned engineer, showing the direct courses and exact distances from such new monuments to the actual corners of the lot.

67. The exact locations of two of these monuments must also be indicated on the plat with reference to permanent landmarks or monuments located near by, but on different courses, and far enough outside of the lot to remain undisturbed by the work to be done under this contract. These references must be so completely made that the monuments if lost could be restored.

68. The engineer must not be one who is regularly employed by the contractor, nor must he have any interest in the contract; and all the certificates, plats, etc., must be forwarded through the office of the superintendent of construction.

69. PHOTOGRAPHS.—The contractor must furnish to the Supervising Architect photographs as follows: On the 1st of each month during the life of the contract until the work is 99 per cent completed photographs in duplicate and taken from two points of view selected by the superintendent, showing as much as possible of the work installed during the previous month; and, when the building and approaches are completed, unmounted photographs in quadruplicate, from two points of view, one showing the entire front and one side elevation and the other the entire rear and remaining side.

70. The photographs of the finished work shall be from such points as will give the best general view of the building, and must include as much of the approach work as is consistent therewith.

71. During the progress of the work the contractor shall furnish and deliver to the superintendent additional photographs taken at close range showing special features of construction and design as follows:

When exterior brick facing is required above grade two photographs, one at the corner of the building and one including an opening, showing the joining and method of finishing the several courses of brick at the sides of piers, pilasters, openings, etc., the photographs to be taken as soon as practicable after sufficient brickwork is completed to represent the workmanship and jointing.

Where reinforced concrete foundations, floors, retaining walls, or other similar work is required, one photograph of a typical panel in each type of construction showing the reinforcing metal in place just prior to the installation of the concrete.

Where steel framing is required at least three photographs showing connections between beams or trusses and girders or columns after all riveting has been done.

When work is required to be carved from models or details furnished by the Government one photograph of the work executed in each kind of material required showing details representative of the finished work.

72. The portions of the work to be photographed in all cases shall be selected by the superintendent.

73. When the contract includes the planting of the grounds the contractor must, on the completion of the planting and during the growing season when the plants are in full leaf, furnish photographs in duplicate, taken from different points selected by the superintendent and showing all of the completed planting.

74. All photographs must be made with a lens adapted to the position from which the picture is to be taken, and must show clearly and distinctly at as large a scale as possible all parts of the work embraced in the picture. All photographs shall be marked on the back with the name of the building and the date upon and direction from which taken, and they must be shipped flat.

75. Photographs of planting and the final photographs of the building shall be 8 by 10 inches in size. All other photographs shall be $6\frac{1}{2}$ by $8\frac{1}{2}$ inches in size. All except the final photographs shall be mounted on muslin.

76. The photographs taken on the 1st of each month shall be delivered to the superintendent of construction, who shall keep one set for the files of his office and forward the other set to the Supervising Architect with his certificate that the photographs represent the exact condition of the work upon the dates named. As these photographs are intended for monthly records, they shall be submitted on the 1st of the month, whether or not any work has been done during the preceding month.

77. The special photographs shall be submitted to the superintendent in the same manner as required for the monthly photographs.

78. The photographs of the planting (when required) shall be delivered to the superintendent of construction, or if the superintendent is absent, to the custodian, who will forward same to the office of the Supervising Architect, together with a written statement over his signature that the planting is in accordance with the contract requirements in every respect.

79. The final photographs of the building and approaches shall be forwarded by the contractor direct to the office of the Supervising Architect.

80. In case any set of monthly photographs is not submitted within five days of the date when due the superintendent shall have such photographs taken, and the cost of same will be deducted from any money due the contractor. A similar procedure will be followed if the special or final photographs of the building and approaches and photographs of the planting are not submitted within five days after this office or its authorized representative has made a demand for same.

81. **SHOP DRAWINGS.**—Shop drawings, course and setting plans, if specified, must be furnished to and be approved by the Supervising Architect before any of the work for which such drawings are required is commenced. Shop drawings, if required, are for the purpose of amplifying the contract drawings and must not show material deviation therefrom.

82. The approval of shop drawings shall be general, and shall not mean said drawings have been checked, and shall in no way relieve the contractor from the responsibility for proper fitting and construction of the work in strict accordance with the contract requirements, nor from the necessity of furnishing materials or workmanship required by the contract drawings and specifications which may not be indicated on shop drawings when approved.

83. Each shipment of shop drawings must be accompanied by a letter of transmission giving a list of the numbers of the drawings. All drawings must be marked with the name of the building and numbered consecutively. All drawings must be checked and be complete in every respect and bound in sets before forwarding to this office.

84. Where architectural terra cotta is required, the shop drawings for ornamental portions for which models are to be furnished shall be made full size and to shrinkage scale, and such drawings will be used in the preparation of the models indicated on the contract drawings. All other drawings of terra cotta may be drawn at smaller scale, but with sufficient dimensions to give the necessary information as to location of joints, length of pieces, etc. These shop drawings must be fully drawn out.

85. The shop drawings for cast-metal work shall be drawn to natural scale.

86. The general contractor shall forward with shop drawings for terra cotta and cast-metal work shrinkage scale rules; those for cast metal to be for single for double shrinkage as the case may require.

87. All shop drawings for which models will be prepared shall indicate fully the jointing and also any foundry, mill, or shop practice which the modeler is to observe.

88. **MODELS.**—It is the purpose of the Government to furnish models for certain ornamental work when so indicated on the drawings. Each model to be furnished is designated, and any additional models required for miters, rights, lefts, etc., or for variable sections of modeled ornament, when not so indicated, must be supplied by the contractor from master patterns duplicating the ornamental features of the models.

89. The models for terra cotta and for cast-metal work will be made to the proper shrinkage scale, as hereinbefore stated under "Shop drawings." Models for all materials not subject to shrinkage will be made full size and to natural scale in suitable sections. The above models will be complete in respect to dimensions and ornamental portions and no further modeling which would affect the character of the ornament will be required; the models will not be prepared, however, to provide for thickness of finished material, backing of work, webs, ribs, etc., and will not necessarily be sufficiently complete to cover all phases of special shop practice.

90. Models for work other than cast work will show sufficient ornament to be used as a guide. "Rights" and "lefts" will not be furnished when the ornament is symmetrical, but approximately one-half of the model will be completely finished.

91. Modeled ornament, when executed, shall faithfully reproduce the character and detail of the models furnished. Any deviation from the models will be cause for rejection of the executed work.

92. The models will be made of plaster of Paris or some similar substance.

93. Except as noted below the Government will furnish the contractor with only one model of each piece of ornament where indicated on the drawings. Such models may be used for first patterns, if suitable, and all additional patterns shall be made by the contractor at his own expense. Where cast ornaments are to be duplicated so many times that a metal pattern will be required, such metal patterns shall be supplied by the contractor, in which case the plaster model furnished by the Government will be made to a double shrinkage scale, if so noted on the shop drawings furnished by the contractor.

94. The necessary shipping instructions for models must be forwarded promptly and attention is called to the fact that for ornament combining materials of different shrinkage values, both the complete model to natural scale and the portions to shrinkage scale will be furnished, and the proper shipping instructions must be supplied for each.

95. Models will be delivered f. o .b. cars at such points as may be designated by the contractor, who shall remove same and who will be held responsible for any charges for storage, etc., after notification that the models have been shipped. The contractor shall also be responsible for the preservation of all models in the possession of his subcontractors until the work to be reproduced from the models has been satisfactorily executed. After completion of the building the models are to be destroyed, unless permission is obtained from the Supervising Architect to dispose of them otherwise.

96. Upon receipt of the models by the consignee they shall be unpacked immediately and examined, dimensions shall be promptly verified, and condition of the models reported at once to the modeler.

97. If any incorrect dimensions are found, or if any dimensions previously given by the Supervising Architect provide insufficient material for ornament to be executed from the models, the contractor shall so notify the Supervising Architect and such further disposition shall be made of the models as may be directed.

98. If the models are received in damaged condition the general contractor should report the matter promptly to the Supervising Architect, describing the manner in which the models were boxed and packed, the extent of the breakage, and stating whether the damage is such as to prevent the use of the model or models for the purpose intended or whether the same can be used in a satisfactory manner without detriment to the finished work.

99. The contractor shall not repair or alter models in any manner without first receiving written instructions from the Supervising Architect.

JAS. A. WETMORE,
Acting Supervising Architect.

SPECIFICATION FOR CONSTRUCTION (EXCEPT VAULT ENTRANCE
AND LIFT) OF ADDITIONAL VAULTS FOR THE UNITED STATES MINT AT
DENVER, COLO.

100. THE GENERAL CONDITIONS specification A-1a accompanying this specification forms a part hereof and shall apply to the work hereunder, except as otherwise specified herein.

101. Paragraphs 48, 65, 66, 67, 68, 70, 73, 78, and 84 to 99 inclusive do not apply.

102. Paragraph 55. The contractor shall when and as directed remove from the premises all dirt and debris resulting from his operations.

103. Paragraph 71. Special photographs will be required of the steel framing and of the concrete reinforcement.

104. EXTENT OF THE WORK.--The work to be done under this specification is the furnishing of all labor and materials (not otherwise specified) and the construction of the additional vaults (except vault entrance and lift) complete, including plumbing, heating and electrical work, and including all alterations of existing work as indicated, and as necessary, for the proper completion of the work.

105. The vault entrance door and frame and attachments, and the lift will be installed under separate contracts.

106. Water in reasonable amounts for use in the work may be taken without charge, from supplies available on the premises, subject to the direction and control of the custodian.

107. TIME FOR COMPLETION.--The work shall be carried on with sufficient force and materials, satisfactory to the Supervising Architect, to assure its completion within eight (8) months from the date of acceptance of proposal therefor.

108. LIQUIDATED DAMAGES.--Subject to the terms of paragraph 17 of the General Conditions, the United States shall be entitled to the fixed sum of forty dollars (\$40) for each day's delay in the completion of the work.

109. PROPOSALS.--Proposals shall be based on drawings Nos. 303, 305, ME-306, and this specification.

110. Drawing No. 304 showing one type of vault entrance and the details of another type of vault entrance shown on the other drawings are included for the purpose of indicating the vault construction required in connection with each type of entrance, either of which may be installed under another contract.

111. The proposals shall be based on vault walls of the thicknesses indicated by figures and not the thicknesses indicated by scale.

112. The proposals shall not include the corridor and compartment enclosures east of partition "A", but shall include partition "A", with gates, and the inclosures for lift machinery and lift in both vaults.

113. Alternate proposals shall be submitted for increasing the thickness of vault walls, also for construction of corridor and compartment inclosures, as further described under "Alternate Specification."

114. MANNER OF CONDUCTING THE WORK.--The work to be performed shall be carried on in such a manner as to cause the least amount of interference with the normal use of the premises, and so as to cause the least amount of inconvenience to the occupants thereof, and to the public.

115. Adequate and satisfactory temporary dust-proof protection shall be provided for all parts of the premises, its contents, and the occupants and patrons, wherever work is to be performed.

116. All existing work shall be removed or altered, or temporarily removed and properly replaced, as may be necessary, or as directed, for the proper performance of the work to be done.

117. Material and debris to be removed shall be sprayed with water as necessary during such removal to effectually prevent dust from arising therefrom, when handled.

118. The removal of existing work and materials shall be carefully done, and they shall, so far as possible, be removed in an undamaged condition.

119. Materials required to be removed from existing work, which in the opinion of the Government representative are suitable, and conform to the contract requirements, may be reused, unless otherwise specified.

120. Materials removed from the work which in the opinion of the Government representative has no value shall be considered debris and be removed from the premises.

121. New work required for the extension of or alteration of existing work, shall, unless otherwise indicated or specified, correspond and harmonize with the work in place.

122. If the removal of existing work exposes discolored or unfinished surfaces, or work out of alignment, or unsuitable materials, such surfaces shall be refinished, or replaced with other materials, as necessary to make contiguous work continuous, uniform and harmonious.

123. DIMENSIONS given of existing work and for new work in connection therewith shall be verified by the contractor by actual measurement of the work in place, and he will be held responsible for all discrepancies arising through neglect to obtain proper measurements.

124. In case discrepancies are found between the drawings or specifications and the conditions existing at the site of the work, such discrepancies shall be referred to the Supervising Architect for adjustment before any of the work that may be affected thereby is performed.

125. REGULATIONS.--All persons employed on the work shall, while on the premises, conform to the regulations of the Mint.

SAMPLES

126. The samples of materials required shall be forwarded for approval either to the Supervising Architect, Washington, D. C., or to the Superintendent of Construction, as stated, all transportation charges on samples submitted shall be prepaid by the contractor.

127. All samples must be so packed as to insure their delivery in good condition. Each sample shall have a label showing the material represented, the name of the general contractor, and the building for which it is intended.

128. Additional samples of materials used in the work shall be submitted by the contractor, when so requested by the Supervising Architect.

129. To insure prompt consideration of samples a letter signed by the contractor must be mailed on the date of shipment to the Supervising Architect, or to the Superintendent, as the case may be, containing a list of samples forwarded, and the brand and name of the manufacturer of materials requiring laboratory tests. This letter must not be sent in the same package with the samples.

130. The contractor shall forward to the Superintendent copies of all letters submitting samples for the approval of the Supervising Architect.

131. The materials from which samples are required must not be delivered on the work before the samples have been approved. All materials when delivered shall correspond in every respect with the approved samples.

132. No action can be taken on samples until after the acceptance of the contractor's bond.

133. All approved samples will be retained on the Superintendent's files until the completion of the work.

134. Samples to be submitted to the Supervising Architect:
Portland Cement, 4 pounds.

135. Samples to be submitted to the Superintendent:

Sand
Aggregate

136. The contractor shall submit to the Supervising Architect, in ample time for their approval before the materials are needed in the work, the names of the brands and manufacturers of the following materials:

White lead
Red lead
Linseed oil

137. The contractor shall submit to the Supervising Architect for approval the names of the brands and manufacturers of any other materials that may be requested.

EXCAVATION AND FILLING

138. All excavation shall be done as required for the placing and inspection of all work under the contract. The lines of excavation shall generally conform as nearly as practicable to the lines of the work to be installed, leaving such space as is required for properly placing the same.

139. All excavation shall finish at the exact levels indicated on the drawings or specified. Any excavations for foundations carried below the required levels shall be filled with concrete of the class specified for footings.

140. Should pipes, conduits, or mains interfere with the construction work, the contractor shall cut off and seal or plug the same outside the lines of the excavation, as directed.

141. All bracing and shoring shall be provided as necessary to prevent caving. All bracing and all plank forms shall be removed as the backfilling is done.

142. All excavations below finished grades shall be back-filled when directed. Any back-filling done before it is ordered by the Superintendent, or any caving against foundations shall be removed.

143. All backfilling not otherwise specified, shall be done with clean material, free from perishable rubbish, placed in regular layers not exceeding 8 inches and be thoroughly tamped, or puddled, if so directed, so that no settlement shall occur.

CEMENT AND LIME

144. All cement and lime shall be delivered in the original packages, bearing the brand and name of manufacturer, and must be kept dry.

145. PORTLAND CEMENT shall conform to the requirements of the standard specification of the United States Government, effective January 1, 1921.

146. LIME shall be mill-hydrated.

MORTAR AND CONCRETE

147. SAND shall be clean, and shall not contain more than 5 per cent of loam by volume. Sand shall be well graded, with coarse particles predominating.

148. AGGREGATE.--Stone and gravel shall be hard, and free from dust, loam, clay, or other deleterious matter. Either stone or gravel will be acceptable for concrete work.

149. Aggregate for mass concrete not reinforced shall pass a 2 inch ring, and for all other purposes (unless otherwise specified) shall pass a 3/4 inch screen; all aggregate shall be held on a 1/4 inch mesh screen and be uniformly graded in size up to the maximum specified.

150. QUANTITIES.--The exact quantities of sand and other aggregate required for mortar and concrete shall be measured by volume for each batch in "struck" measures of known capacities.

151. In determining the volumes of cement to be used, 1 sack of cement (94 pounds net) shall be considered equal to 1 cubic foot.

152. Water shall be measured accurately so that the mixtures will be of uniform consistency, after the first batch of concrete or mortar for each branch of the work has been approved by the Superintendent of Construction.

153. MORTAR MIXTURES.--The following mixtures will be standard for mortars herein specified and will be referred to by their class headings:

Class A. 1 volume of Portland cement to 2 volumes of sand.

Class B. 1 volume of Portland cement to 3 volumes of sand.

Not exceeding 9 pounds of hydrated lime per bag of cement may be added to the above mortars.

154. CONCRETE MIXTURES.--The following composition for concrete will be standard and will be referred to by their class headings:

Class A concrete. 1 volume of cement, 2 of sand, and 4 of stone or gravel aggregate.

Class B concrete. 1 volume of cement, 3 of sand, and 5 of stone or gravel aggregate.

155. MIXING OF MORTAR AND CONCRETE.--The cement, lime and sand, for mortar, when mixed by hand shall be mixed dry until the materials are so thoroughly distributed that the mixture is of uniform color and no particles of bare sand can be detected, then only enough water added to bring it to a plastic condition, after being thoroughly worked.

156. Mortar remaining unused at the time initial set occurs shall not be used in the work, and the cement and sand shall not be mixed more than one hour before the water is added.

157. All concrete, except where used in small batches of less than 1/3 cubic yard, shall be mixed with a rotary type of batch-mixing machine.

158. When concrete is mixed by hand the cement and sand shall be made into mortar, the aggregate drenched and drained, and then mixed until each piece of aggregate is thoroughly coated with mortar, the materials evenly distributed, and of uniform consistency.

159. Reinforced concrete shall be made plastic enough to be spaded and readily worked into place in the forms. It shall be of such consistency as will support the aggregate and must not be sloppy. If, after the concrete has stood five minutes, there shall be present a film or covering of water, the quantity of water used in the mixture shall be reduced as required by the Superintendent.

160. All other concrete shall be of comparatively dry mixture, slightly plastic, so that when tamped free mortar will appear on the surface.

161. Mass concrete not reinforced shall be Class B, unless otherwise indicated.

162. Reinforced concrete shall be Class A.

163. Cement, finished floors, steps, etc., and concrete not otherwise specified shall be Class A.

164. PLACING CONCRETE.--All concrete must be placed immediately after mixing and shall be deposited in continuous layers not over 8 inches thick. All frames, framing, anchors, bolts, etc., shall be properly built in.

165. Suitable provision shall be made, as directed, for the placing of the vault entrance door and frame which will be erected and grouted in place under another contract, after the vault walls are erected.

166. Concrete must be so handled when being placed as to maintain its consistency and not permit the ingredients to separate. Concrete shall not be dropped or dumped more than 6 feet.

167. All concrete shall be thoroughly tamped, puddled, spaded, or forked when placed, so as to produce a dense, compact structure, free from voids, in close contact with the forms and adjoining connecting materials and the reinforcement.

168. Special care shall be taken in placing concrete on exposed faces that the work shall show a workmanlike finish when the forms are removed.

169. All finished concrete surfaces shall be protected from rapid drying until the cement has set. Concrete which is to be given a finish top coat shall be kept free from dirt.

170. Concrete exposed as a finished surface shall be smooth and show no uneven seams or joints.

171. When leaving off work all horizontal surfaces of concrete which are to receive additional concrete, shall be left rough, and before placing new concrete the surface of the concrete which has set shall have any soft material removed, and be brushed clean, drenched, and covered with a wash of neat Portland cement.

172. Concrete for floors shall be placed continuously, if possible, but where construction joints can not be avoided, such joints shall be located where directed by the Superintendent.

173. The spaces over vault partitions shall be filled with concrete.

174. All necessary cutting and patching of concrete in place shall be done as required by the changes to be made, and as required to properly join new and old work.

175. Concrete work in place shall be extended or restored to make the work whole and complete where alterations are made.

176. REINFORCEMENT.--Bars or rods for reinforcement shall conform to the American Society for Testing Materials Standard Specifications for Billet-Steel Concrete Reinforcement Bars, of either structural steel or intermediate grades.

177. Bars or rods not otherwise indicated may be either plain or deformed. The areas called for shall be the minimum net sectional areas.

178. Bars or rods shall be bent and formed to the required shapes.

179. Reinforcing rods or bars shall be accurately spaced and set and supported in position with suitable metal spacers and metal splices so placed and secured as not to be dislocated by placing of the concrete.

180. Reinforcing fabric shall be either wire or steel fabric with sustaining members not less than 3 nor more than 8 inches apart, having a cross-sectional area for every foot in width of not less than 0.08 square inch for wire, and not less than 0.135 square inch for steel. The sustaining members may be integral or be securely fastened together at points not more than 16 inches apart.

181. Metal reinforcement shall be clean and free from scale or flake rust, or other coating.

182. Metal fabric shall be laid with sustaining members at right angles to and continuous between bearings. All joints lapped and secured together to give equivalent strength with the body of the fabric.

183. All metal reinforcement shall be placed and secured in such a manner as to prevent any variation from the position required due to the pouring of concrete. Walking over the reinforcement shall not be permitted.

184. Reinforcement for concrete in connection with work in place shall be let into the work in place not less than 6 inches and be solidly grouted in.

185. No concrete shall be placed to cover reinforcement metal until the reinforcement has been inspected in place and approved by the Superintendent.

186. FORMS AND CENTERS.--Forms and centers for concrete shall have smooth faces and be accurately formed and set to the exact finished lines of the concrete; they shall be so tight as to prevent leakage and be secured in place in such a manner as to prevent deflection or vibration and so as to be easily removed, without damage to the concrete. Forms must be clean and approved by the Superintendent before any concrete is placed.

187. Forms for exposed faces shall be of dressed and tongued and grooved lumber and shall be free from open or uneven joints. Forms for walls shall have the boarding so erected as not to extend more than 2 feet above the concrete in place at any time.

188. Forms for vertical surfaces may be removed as soon as the condition of the concrete will permit. Forms for floor slabs shall not be removed for at least 21 days after pouring the concrete. All forms, supports, etc., however, are removed by the contractor at his own risk, the time stated being the minimum periods.

189. CEMENT FINISH.--All concrete floors and stairs and floors of pits, etc., shall have a smooth cement finish.

190. All cement finish shall be brought to true planes and troweled to a smooth, sound, dense, waveless finish.

191. Cement finish shall have true neatly formed arrises, and shall be free from soft, loose or unsound spots, cracks, crazing or other defects.

192. Cement finish where possible shall be monolithic. The final tamping shall be so done as to force the coarse aggregate away from the surface. The fine material then leveled and finished without a top coat.

193. Where necessary to use a top coat for cement finish it shall be at least $\frac{3}{4}$ inch thick composed of 1 part Portland cement and two parts coarse sand.

194. The top coat shall be applied within 30 minutes after the concrete has been placed, and before it has set.

195. All troweling shall be done as soon as the work is sufficiently firm, but before final set has taken place.

196. The use of dry cement in finishing shall not be permitted.

BRICK WORK AND STONE WORK.

197. All brick and stone work in place shall be cut, chased, patched, etc., as necessary to properly install the new work and adjust the work in place thereto.

198. Brick and stone shall be drenched and laid wet in full beds of class A mortar with all joints solidly filled. Joints exposed to view shall be neatly pointed.

METAL WORK.

199. STEEL.--Steel shall conform to the standard specifications of the American Society for Testing Materials for structural steel for buildings. Steel shall be free from scale or flake rust.

200. Shop connections for structural work shall be riveted. Field connections may be bolted.

201. The diameter of the punch shall not exceed that of the rivet, nor the diameter of the die that of the punch by more than 1/16 inch, and all holes must be clean cut without ragged or torn edges.

202. Columns shall have end bearings milled after the fittings are riveted on.

203. The edges of plates for partitions shall be reasonably true and straight but need not be machined.

204. Structural metal work in place shall be cut, altered, and reconnected as necessary.

205. Beams, columns and girders resting on masonry shall have bearing plates set in Class A mortar.

206. SHOP DRAWINGS in quadruplicate of all metal work shall be submitted for the approval of the Supervising Architect.

207. MISCELLANEOUS METAL WORK.--Miscellaneous metal work shall be of steel or wrought iron, and is herein referred to as wrought iron.

208. Workmanship shall conform to the best accepted standards of architectural metal work. All surfaces and lines of metal work exposed to view shall be clean and sharp. All joints shall be closely fitted.

209. ANCHORS for work in connection with masonry shall be provided and built in as necessary.

210. Work let into concrete or masonry shall be solidly grouted with Portland cement and neatly finished.

211. HATCH WAY.--The ladder hatch-way shall have a rebated frame set flush with the floor, and have a hinged cover with lift handle and a stay bar to hold the cover when open.

212. GATES, ETC.--The gates and grille panels at the entrance to vault, and for the space at end of vault shall have frames of the size noted for horizontals.

213. The gates shall have heavy wrought hinges, and have plates on both sides to cover the lock spaces.

214. Double gates shall have top and bottom bolts for one leaf.

215. Wire mesh doors outside of vaults, and for lift machinery enclosure shall have top and bottom bolts (for double door) and have spring locks operated from outside only by the key: from the inside by a small knob or turn.

216. Each lock shall be fitted to its individual key and have three keys.

217. These doors shall have lock plates of suitable size to protect the locks from the outside.

218. The entrances to the lift shall have gates made up of channels in pairs, not over 4 inches apart, with a lattice filling, so connected as to collapse and slide to one side. The gates shall be supported on roller hangers on overhead tracks and shall travel in slots in the thresholds.

219. The gates shall have an operating pull handles on both sides.

220. The corridor gates shall have top and bottom bolts, on both top and bottom sections, operated by T handles and checked by all bronze, flat key, four-lever, dead bolt locks: all locks keyed alike.

221. The corridor and compartment gates are similar to those constructed by the Diebold Safe & Lock Co., of Canton, Ohio, and now in use in the (old) main storage vault in the basement of this building.

222. The gates outside the vault shall have all bronze, four-lever, dead bolt locks, both fitted to the same key.

223-224. Four keys of each change for gate locks shall be furnished.

225. The catalogue numbers and make of locks shall be submitted for the approval of the Supervising Architect.

226. REFLECTORS.--The reflectors shall be of best quality silvered plate glass mirrors.

227. The frames shall be built of steel angles rigidly supported in place, and set at the exact required angle.

228. The frames shall be backed with 34 gauge galvanized sheet metal.

229. The reflectors shall be bedded on sheets of heavy wool felt covering the entire back of the glass.

230. The glass shall be secured in the frames with suitable spring clips and putty, in the usual manner for glazing metal sash.

231. Putty shall be composed of bolted whiting and pure linseed oil with the addition of litharge as necessary to accelerate its hardening.

232. SHOP PAINTING.--All metal work (except for reinforcing concrete) shall be thoroughly cleaned and given a shop coat of paint. Surfaces in contact shall be painted before assembling.

233. All paint for the shop coat shall be composed of 25 pounds of red lead to one gallon of linseed oil. The materials for painting shall be of the quality elsewhere specified under "Painting."

PAINTING.

234. The Supervising Architect will furnish the contractor on request with samples of the colors for painting.

235. All work that is not to be painted must be protected from spatters, stains or soiling. All edges of painted work adjoining other materials must be full and clean without overlapping.

236. MATERIALS for painting shall conform to the standard specifications adopted by the Federal Specification Board. Before adoption these standard specifications were submitted to the manufacturers for comment. It is believed they will admit all high grade materials manufactured in the United States, and that there will be no difficulty in obtaining the same upon request.

237. Materials shall so far as practicable be delivered in unbroken packages, bearing the brand and maker's name.

238. RED LEAD paint for the shop coat of metal work is elsewhere specified under another heading.

239. All paint not otherwise specified shall be composed of white lead and raw linseed oil and the necessary color to give the desired tint. Not more than 5 per cent of oil drier may be added.

240. PUTTY, except for glazing, shall be composed of white lead paste mixed with dry white lead until of the proper consistency, and colored to match the color of the finish.

241. All new metal work shall be painted two coats of color selected, in addition to the shop coat.

242. All painted work in place soiled or defaced in the placing of new work shall be touched up or refinished.

MECHANICAL EQUIPMENT.

243. WORK TO BE REMOVED.--All disconnected or abandoned electric light and power cables, switchboards, branch conduits to electric lighting outlets, old gas-fixtures and piping, registers on certain heating ducts, plumbing to

lavatory and lighting fixtures, all of which are shown or noted as being located in the space of the new vault; the same are to be removed and stored where directed by the Superintendent or reused as specified.

244. WORK INCLUDED.--This part of the specification covers the furnishing of all labor and material required to install all new work and make all changes in electrical work, heating, plumbing, gas-piping and lighting insofar as noted on drawing ME306 and specified herein.

245. The hoistway for an elevator and the electric feeder for same are supplied under this contract but the elevator proper is not included.

246. Especial attention of bidders is called to the fact that the remodelling and extension of the mechanical and electrical equipment of the building will be difficult and tedious and under no circumstances must the operation of the building be interrupted and it will be an obligation of the contractor that all the mechanical and electrical equipment shown on the drawings and specified and necessary to carrying out the foregoing specification together with all temporary connections, etc., must be done without additional expense to the Government, further the contractor must consult fully and freely with the Superintendent of the Mint and perform the work at such times, Sundays, holidays, nights, etc., as he may direct without additional compensation.

247. Any details of labor and material required to complete the above must be included in the proposal and all bidders are strongly urged to visit the building and consult with the Superintendent of the Mint and be guided by his instructions in conformity with the plans and specifications.

248. Any and all steam, exhaust, drip and drain piping used to serve the old engine plant which may interfere with the construction of the new vaults is to be removed by this contractor and openings blanked off where directed by the Superintendent of the Mint.

249. CHANGES IN ELECTRIC LIGHT AND POWER.--The main electric light feeders consisting of three 600,000 cm cables and the main electric power feeders consisting of three 1,000,000 cm cables, enter the building from overhead service feeders thru present window in engine room. The main switch and meter board for light and power are to be removed from present location to the location shown in boiler room. The present board shall be reconnected and all service leads reconnected to same, by shifting all cables so as to enter thru boiler room window.

250. New feeders from relocated board are to be run exposed on wall to space below present switch-board and secured with U. S. insulator racks or approved equal, to walls and ceiling. Contractor's attention is called to the location of these cables. If the present mechanical equipment in the boiler room is set too close to the wall or otherwise interferes with this proposed cable run, then contractor shall run cables on wall of vault as shown.

251. The rearrangement of service leads must be done at such times and in such a manner as to not interfere with the transaction of public business.

252. Branch circuit wiring and conduit to cabinet A is to be changed as noted. Cabinet A is to be relocated in vault and set out exposed on wall. Repair all defective switches or fuse clips on cabinet A as necessary to leave it in first class operating condition. Secure cabinet in place with 1/2" expansion bolts thru wiring gutter. Refinish wood trim and plug spare holes in cabinet sides.

253. Present feeder A is to be relocated so as to terminate in a new cut-out box where shown with bottom about 5' 0" from floor. Present circuit A8, A9 and A10, which control rooms not disturbed by this contract, together with the new circuit to outside bracket at entrance are to be connected in the new box. Supply all porcelain cut-outs and fuses for the box.

254. CEILING OUTLETS IN BASEMENT VAULT.--The electric ceiling outlets shown as dotted circles on basement plan are in place and connected to present cabinet A. The straight proposal will cover the removal of present fixtures from these outlets and installing therein Edison base porcelain lamp receptacles as specified hereinafter, also the extension of the disturbed branch conduits from relocated cabinet A. No new plug receptacles or ceiling outlets which are shown on this plan are to be included, except under alternate #2.

255. The lighting circuits shall be complete from cabinet to all outlets.

256. The other new work shown on plan to be included.

257. CONDUIT WORK.--All new conduit work in vault space to be run exposed at ceiling or down side walls, except as modified under alternate #2.

258. All conduits shall be rigid steel tubing, galvanized or enameled and secured in place with pipe straps. Ceiling outlet boxes to be 3 1/2" round or octagonal boxes 1 1/2" deep with lugs for securing covers. Covers for ceiling boxes to be flat type containing porcelain edison base lamp receptacle with shade holder groove.

259. Outlets for flood lighting to be similar to ceiling outlet except supplied with a steel-enameled reflector secured rigidly to receptacle with 2 1/4" shade-holder. Outlet box to be supported as indicated on plan.

260. Plug receptacles to be of standard interchangeable type for tandem or parallel blade caps, entirely enclosed in conduit type fittings with cover having hole to allow porcelain receptacle to come flush with cover.

261. Wall switches to be 10 ampere 125 volt push-button type entirely enclosed in a conduit-type fitting with flush cover. Where plug receptacle and wall switch occurs in upper vault space are to be 2 gang units. All other fittings as conditions require.

262. WIPE.--All wiring to be rubber-insulated double-braided conductors of sizes noted on plans. Branch circuit to be #14 B & S gauge. All work shall be done in first class manner, all joints to be soldered, taped, etc., as required by the requirements of the National Electrical Code.

263. All feeders and branch circuits shall test clear of grounds and short circuit and be complete from outlet to outlet.

264. The branch circuits to the two exterior bracket fixtures at engine room entrance are to be cut off inside of wall and conduits sealed with cement mortar. The fixtures shall be left in place.

265. The branch circuits to the 4 exterior standards at gates of driveway are to be picked up in a small junction box in vault and carried in new conduit in floor construction to present switchboard.

266. MOTOR GENERATOR.--Main switch and meter panel for motor-generator shall be relocated adjacent to present control panel. Supply new slate or marble panel as required to match control panel now in use, of suitable size to mount thereon one 400 ampere 250 volt switch with enclosed cartridge type knife blade contact, 225 ampere rating also space for watt-hour meter. Supply angle-iron frame and supports as directed. Connect the busbars of new panel to the present equipment.

267. The present motor-generator and base shall be re-located as shown on plan. All conduits and feeders shall be removed from present to the proposed location of the motor-generator.

268. TELEPHONE SERVICE.--The main telephone conduit which enters approximately where shown shall be terminated in a junction or pull box of minimum size as conditions permit, with a new horizontal branch to connect to an existing riser to upper floor. This contractor will be required to maintain all telephone service during alterations and after new conduit has been installed, all lines and cables shall be electrically continuous and properly insulated.

269. Bracket outlet for lighting fixture at vault entrance shall be 6" in diameter and have 3 7/8" opening in center. Outlet to be similar to conduit type P or approved equal, located about 6' 6" above floor. Supply 1 1/2" fixture stud.

270. GAS PIPING.--All gas piping and fixtures which come within the new vault space shall be removed and gas piping capped tight back of finished wall line as directed.

271. HEAT DUCT.--Certain metal heating ducts now discharge into the proposed vault. These ducts are to have the registers removed and be closed by new vault wall. The other ducts which rise to upper floor are not to be disturbed.

272. LAVATORY.--The present lavatory in new vault space shall be removed and stored where directed. All abandoned hot and cold water piping and the vent and drain piping shall be removed back to the main or plugged at wall line as directed.

273. LIGHTING FIXTURE.--Supply one stiff bracket fixture, brush brass finish, 5" canopy, chain-pull socket, 2 1/4" shade holder andopalasant glass reflector for 50 watt lamp. Install same on outlet at vault.

ALTERNATE SPECIFICATION.

274. All work and materials not otherwise specified herein shall conform strictly with similar work and materials before specified.

275. Bidders shall state in their proposals the amounts to be added thereto for the following alternate construction. Such amounts shall include all additional work and materials not hereinbefore specified, and all modifications of work and materials otherwise required that may be necessary for or incident to such alternate construction.

276. Alternate No. 1. The amount to be added to the proposal if the vault walls figured 12 inches thick be increased to 18 inches in thickness. This does not include the wall outside of vault proper. The increased thickness of exterior walls would be made on the outside.

277. Alternate No. 2. The amount to be added to the proposal if the corridor and compartment inclosures east of partition "A" are installed as indicated on the drawings. Locks and bolts for all corridor and compartment gates would be the same as for corridor gates and the locks fitted to the same key.

278. CONDUIT AND WIRING.--All new exposed conduit, wiring, lamp receptacles, wall switches and plug receptacles shown as connected to new circuits 7 - 8 - 9 on basement ceiling, and also the removal of present fixtures, taping up ends, and supplying blank covers for all old abandoned outlets shall be included in this proposal.

Jas. A. Wetmore,

Acting Supervising Architect.

CFL

mjt

ADDITIONAL VAULTS.

DENVER, COLO., MINT.

USE THIS PROPOSAL SHEET FOR BIDDING.

Proposals must be submitted in duplicate.

N.B.--After this proposal sheet is filled out it must be detached and forwarded under separate cover, with postage prepaid by the bidder.

NOTICE.--This proposal will be rejected if not accompanied by a certified check in the specified sum.

City _____ State _____

Street & No. _____

Date _____ 1923.

To the Supervising Architect,

Treasury Department, Washington, D. C.

Sir:

_____ hereby propose to furnish all labor, equipment, and materials required for construction of additional vaults for the United States Mint at Denver, Colo., in strict accordance with the specification for same dated July 3, 1923, the drawings, etc., mentioned therein and such other drawings as may be furnished, and the instructions of the Superintendent in conformity therewith for the sum of:

Dollars (\$ _____)

For alternate No. 1. (increasing thickness of vault walls, as specified) add: _____ Dollars (\$ _____)

For alternate No. 2 (construction of corridor and compartment enclosures, as specified) add:

Dollars (\$ _____)

Signature _____

Names of Individual Members of Firm _____

Name of Corporation _____

Name of President _____

Name of Secretary _____

Under what law corporation is organized _____

mjt

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Under what law corporation is organized _____

mjt

ADDITIONAL VAULTS.

DENVER, COLO., MIST.

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tjt

RECEIVED BY CLERK OF THE COURT

Contract for Additional Vault Construction

